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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/601,124

06/20/2003

Zhong-Wei Chen

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6012

20350

7590

01/27/2005

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EXAMINER

BERMAN, JACK I

ART UNIT

PAPER NUMBER

2881

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/601,124

Applicant(s)

CHEN, ZHONG-WEI

Examiner

Jack I. Berman

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2,4 and 6-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,4 and 6-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 2 and 6-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15, 20, and 21 of U.S. Patent No. 6,392,231. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to a person having ordinary skill in the art to incorporate the annular detection unit claimed in claims 20 and 21 of the patent into the embodiments claimed in claims 1-15 and to claim that only at least one deflection unit is located within the central bore of the lens rather than all of the deflection units, except at least one that is located in the retarding field of the beam, as is claimed in the patented claims.

Claim 4 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 21 of U.S. Patent No. 6,392,231 as applied to claims 2 and 6-20 above and further in view of Weimer. As was explained in the previous Office action, Weimer discloses a lens system for focusing a primary particle beam, which may be an electron beam, and moving the focused primary particle beam on a specimen to be examined and collecting a plurality of secondary electrons and back-scattered electrons generated by the primary beam colliding with the specimen, the system comprising:

a lens (objective 6) adapted to generate a magnetic field in a vicinity of the specimen (located on object holder 10) to focus the particles of the particle beam on the specimen, the lens having a central bore through which the particle beam travels, said central bore being axially symmetric about the beam axis and having a beam-defining aperture (the unlabeled aperture in the detector) at a point where the primary particle beam enters the central bore and a lens aperture at a point where the primary particle beam exits the central bore of the magnetic lens;

an annular detection unit (16) within the central bore and located within a vicinity of where the primary particle beam enters the central bore, the detection unit collecting back-scattered electrons and secondary electrons generated by the primary beam colliding with the specimen, the detection unit positioned to capture the back-scattered electrons and secondary electrons traveling along the beam axis in a direction opposite to the primary beam; an aperture within the annular detection unit; an electrode (9) having a potential adapted to provide a retarding field to the particle beam near and at the specimen to reduce an energy of the particle beam when the particle beam collides with the specimen; and a deflection system including at least one deflection unit (11) having an aperture larger than the aperture of the annular detection

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unit along a beam axis for deflecting the particle beam to allow scanning of the specimen, said at least one deflection unit located within the central bore of the lens. It would have been obvious to a person having ordinary skill in the art to apply the teachings of Weimer to the swinging objective retarding immersion lens claimed in the '231 patent by providing a deflection unit with an aperture larger than the aperture of the annular detection unit so that the beam can be scanned over a larger area.

The indicated allowability of claims 21, 22, and 27-29 is withdrawn in view of the newly discovered reference(s) to Chen. Rejections based on the newly cited reference(s) follow.

Claims 21-29 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 16-26 of U.S. Patent No. 6,392,231.

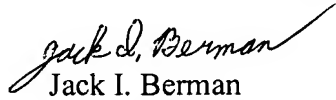
Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent contain all the limitations of claims 21-29 of the instant application plus additional limitations on the locations of a plurality of deflection units. The omission of these additional limitations cannot patentably distinguish the instant claims from the patented claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack I. Berman whose telephone number is (571) 272-2468. The examiner can normally be reached on M-F (8:30-6:00) with every second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jack I. Berman  
Primary Examiner  
Art Unit 2881

jb  
1/25/05